are moving past it at sixty miles per hour. We can gather no further data for this—we have simply grafted our idea of "animus" to the cheetah. We say that it moves because we believe that we move. This concept of animals in motion is so ancient and ingrained that it appears intact at the beginning of written history—except for a few hints here and there. Our oldest writings have our modern action verbs intact—"to go," "to walk," "to journey," etc. But there is no logic in tracing this lineage back through the animals. There are a myriad of creatures to utilize to develop a hypothesis of what could be termed 'opposite motion.' And the importance of this? While we have in the past taken our baseline reality from physics, there are many reasons why biology should be considered just as rigorous and "hard" a science. Understanding how other creatures sense their world can lead to a greater knowledge. Physics may not hold interspecifically. Therefore, one could make the point that our belief in man-eating plants is a relic, instinctive genetic memory- that other species see plants try to grab them and ground flow underfoot.

## Culturing Drosera Petiolaris Aff. "Kununurra"

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In the spring of 1990 I was fortunate enough to receive several plants of a new species of the *Drosera petiolaris* complex. These plants are currently known as *Drosera petiolaris* aff. "Kununurra."

This species, unlike the typical *D. petiolaris*, forms a large prostrate rosette. In my opinion this is one of the most attractive members of the complex. In the best plants, the brilliant scarlet lamina are in vivid contrast to the almost white petioles and central portion of the plant. The central portion of the plant itself is green but appears white due to an extremely thick coating of hairs. This is certainly the most wooly of the wooly sundews.

The value of these hairs becomes readily apparent when we look at the plant's habitat, which is typically a hot wet season a hot wet season alternating with a hotter dry season. As the soil dries during the dry season the plant dies back until all that is left is the "fur coated" central bud of the plant. At this time the hairs are likely to serve three functions: they act as insulation from the heat, they reflect light and heat away from the plant, and they act as a surface for water to condense on at night.

The culture of this species is still somewhat in the experimental stage, but I have had very good results with the following method.

Since the plant may become rather large, I suggest a minimum pot size of four inches, six might be better. I use a mix of approximately 50% peat to 50% sand. I've tried other mixes, and even live sphagnum, but I've had best results with the peat/sand mix.

I grow my plants outdoors most of the year. Last summer my plants survived several days when the temperature hit 120°F. This last winter I had several days when the low temperature was in the low 20 degree F. range. Although they survived it, there was a little damage, so I suggest growing indoors under lights during the winter.

I water my plants from the bottom in trays. Each day enough water is put into the tray so that it will be completely absorbed by evening. During cooler weather I reduce watering accordingly. This plant will sometimes go dormant during the summer. If this should happen water should be reduced to keep the soil just damp and watering resumed when growth resumes.

Propagating this plant has proven to be fairly easy and can be done using several methods. Seed, when available, germinates readily although growth is somewhat slow.

Mature plants will often produce plantlets from the side of the crown. When this occurs, these plantlets can be removed and potted up. In addition, the entire crown may divide down the middle producing two mature plants.

However the easiest-yes, there is an easy way to propagate this plant is by leaf cuttings. So far, in my experience, this species has not exhibited the same reluctance to strike from leaf cuttings that other *D. petiolaris* forms show.

When I first received the plants, I automatically took cuttings as a precaution against the loss of the plant. These leaves were buried about half way in long fiber sphagnum moss. Being familiar with the strike problems of other members of this group, I was quite amazed to see plantlets poking through the moss in three weeks. Overall I had about an 80% success rate.

After examining failed leaves from this and other attempts, I have determined that when taking cuttings it is vital to "cut" the petiole as close to the plant as possible. Leaves that are cut off too far above the leaf stem junction invariably fail. The best way I have found to take the cuttings is to grasp the leaf as close to the plant as possible and pull gently downward until the leaf comes free.

In subsequent cutting attempts I have found that unless the leaf is obviously dying, age has little effect on success. In addition, temperature seems to play only a small role as well. I have had pots of cuttings strike with equal success indoors under lights and outside subjected to variable day-night temperatures.

In anticipation of questions regarding the availability of this plant for trade, at the moment I have no spares available, although I anticipate having some soon so feel free to inquire. Although I have had great success with cuttings I have found that the resulting plantlets are often quite sensitive to disturbance and should be allowed to become well established before repotting.

## Pinguicula villosa The Northern Butterwort

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## Introduction

Pinguicula villosa, the minute butterwort of northern Canada and Alaska, has been commented on sparsely to date and studied by few. Rarely cultivated and even more difficult to obtain, this butterwort prefers to grow in the remote and often inaccessible north which helps contribute to its status as a "rare" plant. Despite being labelled as a very difficult plant to grow, if careful attention is given to the stringent culture requirements of *P. villosa* then successful and flowering colonies can be grown. Ranging from northern British Columbia [59 degrees latitude], to within 160 kilometers [100 miles] of the Arctic circle, 16 study sites were visited and observed over a four year period. The accompanying map shows the study areas which consisted mainly of Canada's Yukon Territory and included parts of northern British Columbia and eastern Alaska.